



PTO/SB/08a (08-03)

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Substitute for form 1449A/PTO

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

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Sheet 1

of 12

Complete if Known

Application Number	10/699,360
Filing Date	Oct. 31, 2003
First Named Inventor	Eric S. Olson
Art Unit	
Examiner Name	

Attorney Docket Number TCOM-0012

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
CW		US-4088955	05-09-1978	Baghdady	
CW		US-4309769	01-05-1982	Taylor, Jr.	
CW		US-4359738	11-16-1982	Lewis	
CW		US-4665401	05-12-1987	Garrard et al.	
CW		US-4670885	06-02-1987	Parl et al.	
CW		US-4780885	10-25-1988	Paul et al.	
CW		US-4856025	10-08-1989	Takai	
CW		US-4893316	01-09-1990	Janc et al.	
CW		US-4922506	05-01-1990	McCallister et al.	
CW		US-4933639	06-12-1990	Barker	
CW		US-4965732	10-23-1990	Roy III et al.	
CW		US-5017929	05-21-1991	Tsuda	
CW		US-5099493	05-24-1992	Zeger et al.	
CW		US-5105435	04-14-1992	Stilwell	
CW		US-5109390	04-28-1992	Gilhousen et al.	
CW		US-5119401	06-02-1992	Tsujimoto	
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Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁴
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
CW		EP 0558910 A1	01-25-1993	Blaupunkt-Werke GmbH		435973
CW		EP 0610989 A2	01-31-1994	Philips Patentverwaltung GmbH		435973
CW		JP2000-13360A	01-14-2000	NEC Corp.		435973
CW		DE 4201439 A1	07-22-1993	Daimler-Benz		435973
CW		DE 4326843 A1	02-16-1995	Richard Hirschmann GmbH & Co		435973

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/Cicely Ware/ (06/01/2006)

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		Number-Kind Code ^{2/3} (if known)			
CW		US- 5218359	06-08-1993	Minamisono	
CW		US- 5218619	06-08-1993	Dent	
CW		US- 5220687	06-05-1993	Ichikawa et al.	
CW		US- 5224122	06-29-1993	Bruckert	
CW		US- 5237586	08-17-1993	Bottomley	
CW		US- 5263191	11-16-1993	Dickerson	
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CW		US- 5305349	04-19-1994	Dent	
CW		US- 5325394	06-28-1994	Bruckert	
CW		US- 5343493	08-30-1994	Karimullah	
CW		US- 5343496	08-30-1994	Honig et al.	
CW		US- 5347535	09-13-1994	Karasawa et al.	
CW		US- 5353302	10-04-1994	Bi	
CW		US- 5386202	01-31-1995	Cochran et al.	
CW		US- 5390207	02-14-1995	Fenton et al.	
CW		US- 5394110	02-28-1995	Mizoguchi	
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		Country Code ³ * Number ⁴ Kind Code ⁵ (if known)				
CW		DE 4343959 A1	06-29-1995	Richard Hirschmann GmbH & Co		S2048
CW		WO 93/12590	06-24-1995	Array-Comm, Inc.		S2068
CW		GB 2280575 A	02-01-1995	Roke Manor Research Limited		S2069
						S2062
						S2064

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		Number-Kind Code ² (# known)			
CW		US- 5440265	08-08-1995	Cochran et al.	
CW		US- 5448600	09-05-1995	Lucas	
CW		US- 5481570	01-02-1996	Winters	
CW		US- 5506865	04-09-1996	Weaver Jr.	
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CW		US- 5926761	07-20-1999	Reed et al.	
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		Country Code ³ Number ⁴ Kind Code ⁵ (# known)				
						548157
						548157
						548157
						548157
						548157
						548157

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				Examiner Name	
Sheet	4	of	12	Attorney Docket Number	

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U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number <small>Number-Kind Code² (if known)</small>	Publication Date <small>MM-DD-YYYY</small>	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
CW		US- 5995499	11-30-1999	Hottinen et al.	
CW		US- 6002727	12-14-1999	Uesugi	
CW		US- 6014373	01-11-2000	Schilling et al.	
CW		US- 6018317	01-25-2000	Dogan et al.	
CW		US- 6088383	07-11-2000	Suzuki et al.	
CW		US- 6101385	08-08-2000	Monte et al.	
CW		US- 6104712	08-15-2000	Robert et al.	
CW		US- 6115409	09-05-2000	Upadhyay et al.	
CW		US- 6127973	10-03-2000	Choi et al.	
CW		US- 6131013	10-10-2000	Bergstrom et al.	
CW		US- 6137788	10-24-2000	Sawahashi et al.	
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CW		US- 6157685	12-05-2000	Tanaka et al.	
CW		US- 6157842	12-05-2000	Kaisson et al.	
CW		US- 6157847	12-05-2000	Buehrer et al.	
CW		US- 6163696	12-19-2000	Bi et al.	
CW		US- 6166690	12-26-2000	Lin et al.	

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Examiner Initials*	Cite No. ¹	Foreign Patent Document <small>Country Code³ Number⁴ Kind Code⁵ (if known)</small>	Publication Date <small>MM-DD-YYYY</small>	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
					601437
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Application Number	10/699,360
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		Number-Kind Code ² (<i>d known</i>)			
CW		US- 6172969	01-09-2001	Kawakami et al.	
CW		US- 6175587	01-15-2001	Madhow et al.	
CW		US- 6192067	02-20-2001	Toda et al.	
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CW		US- 6215812	04-10-2001	Young et al.	
CW		US- 6219376	04-17-2001	Zhodzishsky et al.	
CW		US- 6222828	04-24-2001	Ohlson et al.	
CW		US- 6230180	05-08-2001	Mohamed	
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CW		US- 6233459	05-15-2001	Sullivan et al.	
CW		US- 6240124	05-29-2001	Wiedeman et al.	
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CW		US- 6275186	08-14-2001	Kong	
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						619201
						619202
						619203
						619204
						619205

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CW		US- 6282233	08-28-2001	Yoshida	
CW		US- 6285316	09-04-2001	Nir et al.	
CW		US- 6285319	09-04-2001	Rose	
CW		US- 6301289	10-09-2001	Bejjani et al.	
CW		US- 6304618	10-16-2001	Hafeez et al.	
CW		US- 6308072	10-23-2001	Labedz et al.	
CW		US- 6310704	10-30-2001	Dogan et al.	
CW		US- 6317453	11-13-2001	Chang	
CW		US- 6321090	11-20-2001	Soliman	
CW		US- 6324159	11-27-2001	Mennekens et al.	
CW		US- 6327471	12-04-2001	Song	
CW		US- 6330460	12-11-2001	Wong et al.	
CW		US- 6333947	12-25-2005	van Heeswyk et al.	
CW		US- 6351235	02-26-2002	Stilp	
CW		US- 6351642	02-26-2002	Corbett et al.	
CW		US- 6359874	03-19-2002	Dent	
CW		US- 6362760	03-26-2002	Kober et al.	
CW		US- 6377636	04-23-2002	Paulraj et al.	

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						628531
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CW		US- 6380879	04-30-2002	Kober et al.
CW		US- 6396804	05-28-2002	Odenwalder
CW		US- 6430216	08-06-2002	Kober et al.
CW		US- 6459693	10-01-2002	Park et al.
CW		US- 20010003443	06-14-2001	Velazquez et al.
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CW		US- 20010021646	09-13-2001	Antonucci et al.
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CW		US- 20020001299	01-23-2002	Petch et al.
CW		US- 20020172173	11-21-2002	Schilling et al.
CW		US- 20030053526	03-20-2003	Reznik
CW		US- 6285861	09-04-2001	Bonaccorso et al.
CW		US- 3742201	06-26-1973	Groginsky
CW		US- 4713794	12-15-1987	Byington et al.
CW		US- 5377183	12-27-1994	Dent
CW	CW	US- 20020051433	05-02-2002	Affes et al.
CW		US- 5894500	04-13-1999	Bruckert et al.
CW		US- 6404760	06-11-2002	Holtzman et al.

FOREIGN PATENT DOCUMENTS				
Examiner Initials*	Cite No. ¹	Foreign Patent Document <small>Country Code³-Number⁴-Kind Code⁵ (if known)</small>	Publication Date <small>MM-DD-YYYY</small>	Name of Patentee or Applicant of Cited Document

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet

8

of 12

Complete if Known

Application Number	10/699,360
Filing Date	Oct. 31, 2003
First Named Inventor	Eric S. Olson
Art Unit	
Examiner Name	

Attorney Docket Number TCOM-0012

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (<i>if known</i>)			
CW		US-6584115	06-24-2003	Suzuki	
CW		US-6266529	07-24-2001	Chheda	
CW		US-5978413	11-02-1999	Bender	
CW		US-6590888	07-08-2003	Ohshima	
CW		US-20020176488	11-28-2002	Kober et al.	
CW		US-6032056	02-29-2000	Reudink	
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CW		US-6515980	02-04-2003	Bottomley	
CW		US-6574,270	06-03-2003	Madkour	
CW		US-6798737	09-28-2004	Dabak	
CW		US-6501788	12-31-2002	Wang	
CW		US-6801565	10-05-2004	Bottomley	
CW		US-6404760	06-11-2002	Holtzman	
CW		US-6385264	05-07-2002	Terasawa	
CW		US-6680727	01-20-2004	Butler	
CW		US-6570909	05-27-2003	Kansakoski	
CW		US-6580771	06-17-2003	Kenney	
CW		US-6363104	03-26-2002	Bottomley	

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		Country Code ³ Number ⁴ Kind Code ⁵ (<i>if known</i>)				
						697841
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				<i>Application Number</i>	10/699,360
				<i>Filing Date</i>	Oct. 31, 2003
				<i>First Named Inventor</i>	Eric S. Olson
				<i>Art Unit</i>	
				<i>Examiner Name</i>	
Sheet	9	of	12	<i>Attorney Docket Number</i>	TCOM-0012

NON PATENT LITERATURE DOCUMENTS					
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CW		MITRA, ET AL., Adaptive Decorrelating Detectors for CDMA Systems, Accepted for Wireless Communications Journal, Accepted May 1995			
CW		SCHNEIDER, Optimum Detection of Code Division Multiplexed Signals, IEEE Transactions on Aerospace and Electronic Systems, Jan. 1979, Vol. AES-15 No. 1			12
CW		MITRA, ET AL., Adaptive Receiver Algorithms for Near-Far Resistant CDMA, IEEE Transactions of Communications, Apr. 1995			
CW		LUPAS, ET AL. Near-Far Resistance of Multiuser Detectors in Asynchronous Channels, IEEE Transactions on Communications, April 1990, Vol. 38, No. 4			
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				<i>Application Number</i>	10/699,360
				<i>Filing Date</i>	Oct. 31, 2003
				<i>First Named Inventor</i>	Eric S. Olson
				<i>Art Unit</i>	
				<i>Examiner Name</i>	
Sheet	10	of	12	Attorney Docket Number	TCOM-0012

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CW		ILTIS, Multiuser Detection of Quasisynchronous CDMA Signals Using Linear Decorrelators, IEEE Transactions on Communications, Nov. 1996, Vol. 44, No. 11				
CW		RAPPAPORT, Wireless Communications - Principles & Practice, 1996, pgs. 518-533, Prentice Hall, Upper Saddle River, NJ, US				12
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CW		VERDU, Minimum Probability of Error for Asynchronous Gaussian Multiple-Access Channels, IEEE Transactions on Information Theory, Jan. 1986, Vol. IT-32, No. 1				
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				<i>Application Number</i>	10/699,360
				<i>Filing Date</i>	Oct. 31, 2003
				<i>First Named Inventor</i>	Eric S. Olson
				<i>Art Unit</i>	
				<i>Examiner Name</i>	
Sheet	11	of	12	<i>Attorney Docket Number</i>	TCOM-0012

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CW		KAPLAN, Understanding GPS - Principles and Applications, 1996, pgs. 83-236, Artech House, Norwood, MA, US			T ²
CW		SCHARF, Statistical Signal Processing - Detection, Estimation, and Time Series Analysis, 1990, pgs. 23-75 and 103-178, Addison-Wesley, Reading, MA, US			12
CW		STIMSON, Introduction to Airborne Radar 2nd edition, 1998, pgs. 163-176 and 473-491, SciTech Publishing, Mendham, NJ, US			
CW		BEHRENS ET AL., Signal Processing Applications of Oblique Projection Operators, IEEE Transactions on Signal Processing, Jun. 1994, Vol. 42, No. 6			
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CW		ORTEGA ET AL., Analog to Digital and Digital to Analog Conversion Based on Stochastic Logic, IEEE 0-7803-3026-9/95, 1995			
CW		FRANKEL ET AL., High-performance photonic analogue digital converter, Electronic Letters, Dec. 4, 1997, Vol. 33, No. 25			
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT		<i>Application Number</i>	10/699,360
(Use as many sheets as necessary)		<i>Filing Date</i>	Oct. 31, 2003
		<i>First Named Inventor</i>	Eric S. Olson
		<i>Art Unit</i>	
		<i>Examiner Name</i>	
Sheet	12	of	12
		<i>Attorney Docket Number</i>	TCOM-0012

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CW		THOMAS, Thesis for the Doctor of Philosophy Degree, UMI Dissertation Services, Jun. 1996, Ann Arbor, MI, US	
CW		SCHLEGEL ET AL., Projection Receiver: A New Efficient Multi-User Detector, IEEE, 1995, 0-7803-2509-5/95	12
CW		BEHRENS, Subspace Signal Processing in Structured Noise, UMI Dissertation Services, Jun. 1990, Ann Arbor, MI, US	

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